



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/546,833	04/11/2000	Brian Mitchell Bass	RAL9-00-042	4516
25299	7590	09/14/2005	EXAMINER	
IBM CORPORATION PO BOX 12195 DEPT YXSA, BLDG 002 RESEARCH TRIANGLE PARK, NC 27709			LY, ANH VU H	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/546,833

Applicant(s)

BASS ET AL.

Examiner

Anh-Vu H. Ly

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,25-33 and 36-38 is/are allowed.
- 6) ☒ Claim(s) 1-3,5-8,10-24,34 and 35 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 12, 2005 has been entered.

Claim Objections

2. Claims 3, 6, 10, 13, 23, 27, 29, 31, and 37 are objected to because of the following informalities:

With respect to claims 3 and 6, in line 8, "said pico instructions" lacks antecedent basis.

With respect to claim 10, in line 11, "said processor" lacks clear antecedent basis. It is unclear whether ingress processor or egress processor being referred to.

With respect to claim 13, in line 5, "said frame parameters" lacks antecedent basis.

With respect to claims 23 and 37, in lines 2 and 3, "the unicast frame" and "the multicast frame" lack antecedent basis.

With respect to claim 27, in line 8, "said data" lacks antecedent basis.

With respect to claim 29, in lines 3, 6, 12, and 14, "said frame", "said received frame", "said starting address", "said instructions", and "the port" lack antecedent basis.

With respect to claim 31, in line 2, "said received frame" lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 22-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 22 and 24, in lines 6-8, “having data for identifying a beginning of a processing sequence for said egress process, data, generated by said ingress process” is unclear. It is unclear whether the data, herein, is the same type of data, or different types of data.

Claim 23 is rejected as it depends upon rejected independent claim 22.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5-8, 10-24, and 34-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Gallo et al (US Pub 2004/0228339 A1).

With respect to claims 1, 3, 6-8, 10, 13, 19-22, 24, and 34-35, Gallo discloses a network switching system (Fig. 1) having an ingress processor (Fig. 1, "16") for receiving incoming frames from a port of a network (Fig. 1, "14") and an egress processor (Fig. 1, "34") having a port through which said frames delivered (Fig. 1, "36"). Gallo discloses forming at ingress processor a header for each frame destined for egress processor, the header having code for identifying a beginning address of pico-code instructions stored in egress processor and data, generated by ingress processor, to be used as required by pico instructions being executed (page 6, 67th paragraph discloses that the processing unit 110 is preconditioned with the starting address of the instruction set which is appropriate for the frame being processed and appropriate flags indicating the type of frame are set to allow the processor 110 to begin processing the frame using the correct instructions). Gallo discloses decoding the code in the header in hardware frame classifier into a starting address in pico-code for egress processor (page 4, 41st paragraph discloses that the starting instruction in the instruction storage 122 is addressed in accordance with an address which is based on the type of message, its protocol and encapsulation method, as determined by the hardware classifier assist 118). Gallo discloses that wherein decoding the code including indexing an address table in the hardware frame classifier (Fig. 4). Gallo discloses that wherein the data is located in two fields, the first of which identifies the number of bytes in a second field containing parameters for execution by the egress process (page 5, 46th paragraph discloses that a length LTH by the next 5 bits indicating the length in bytes of the total E-RIF portion, including the E-RIF route control and E-RIF route descriptor).

With respect to claims 2, 5, 11, 18, and 23-24, Gallo discloses that wherein frame header includes control information for egress processor which distinguish frames as being multicast or unicast (page 4, 43rd paragraph discloses that the source address can indicate either that the message is an individual message, destined for a single network address on one node on the network or that it is a multicast or a broadcast message. This further implies that if the message is a multicast message then multiple copies are created and forwarded via multiple output ports).

With respect to claim 12, Gallo discloses that wherein frame header is stored in fixed length fields which have a length determined by a length field in the header (Fig. 3D).

With respect to claims 14 and 15, Gallo discloses wherein ingress processor creates multiple fields in the header for indicating the type of frame received and the ingress processor encodes in the header data representing a level of processing completed by ingress processor (Abstract discloses that the key characteristics fro the frame, e.g., type of layer 3 or layer 2 protocol used in the frame, starting instruction address, and flags are stored and then used by the network processing complexes in its further processing of the frame. Herein, stored key characteristics related to packet classification completions).

With respect to claims 16 and 17, Gallo discloses that wherein a hardware classifier identifies the starting address from identifying data in the header and wherein the hardware locates address from table which is indexed by identifying data (Fig. 4).

Art Unit: 2667

Allowable Subject Matter

5. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 4, 25-33, and 36-38 are allowed.


Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

avl


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800 9/12/05